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EXPLORATION OF NEW CHEMOTHERAPEUTICS  
FOR  
INFECTIOUS DISEASES

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EXPLORATION OF NEW CHEMOTHERAPEUTICS

FOR

INFECTIOUS DISEASES

Fundamental Studies on Protomycin, an Antiamoebic  
Antibiotic and Cephalomycin, an Antiviral Anti-  
biotic

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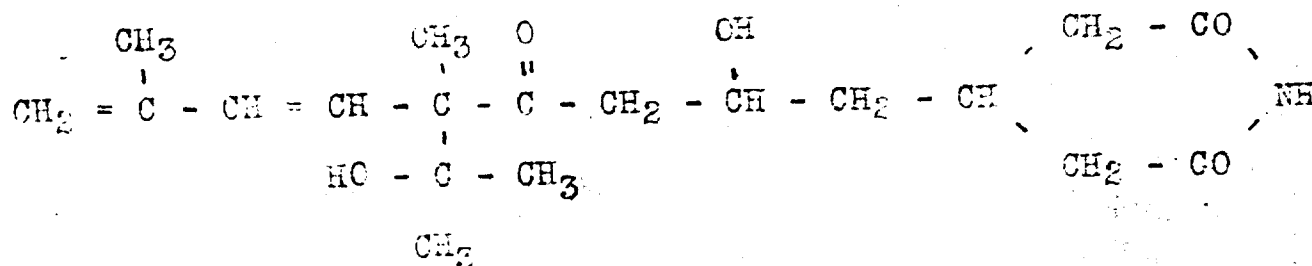
The main products may be summerized as follows:

3,5-dimethyl-3,5-heptadiene-2-one (III) and acetone (IV) were proved as volatile ketones arising from alkaline degradation of pretomycin.

Formaldehyde (VII) and acetaldehyde (VIII) were proven by ozonolysis of protomyoin.

The oxime of tetrahydropyromycin, although it remained oil, were treated with conc.  $H_2SO_4$  to induce Beckmann rearrangement and thereafter steam distilled from acidic solution. An acid with molecular formula of  $C_{10}H_{19}COOH$  was obtained as p-phenylazophenacyl ester (XI).

These products from (I) through (XII) were found to be explained well by the chemical structure:



### Tentative Structure of Protomycin

Cephalomycin, an antiviral antibiotic, was separated into two fractions as described in p. 17 of the final report (2). Each of these fractions gave a single spot when tested on electrophoretic paperchromatography.

The fraction A migrated as albumin and Fraction B as gamma globulin.

The activity was higher in the former than in the latter.

The result is to be made publish at the Symposium for the Antiviral substance, March 3, 1962.